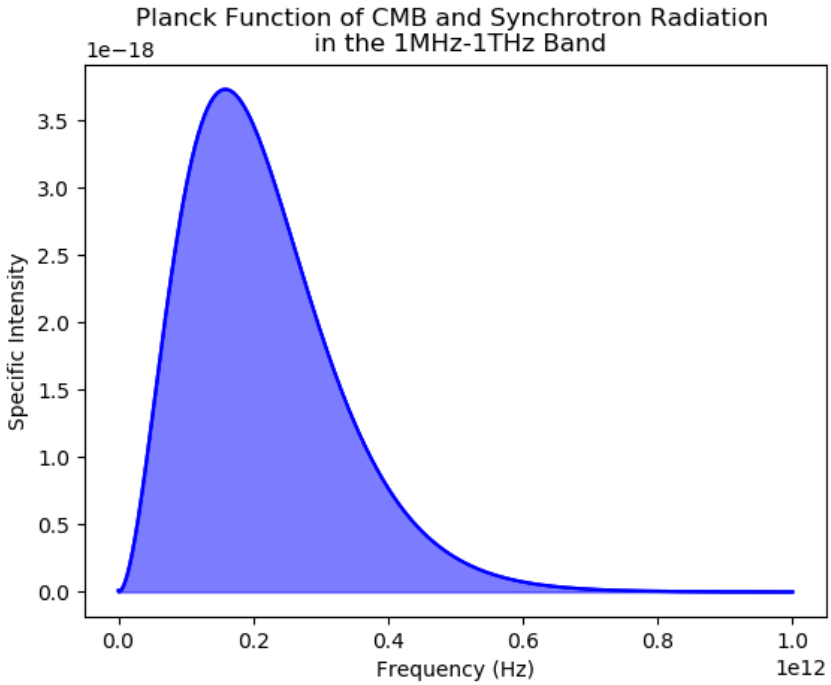
```python
import numpy as np
import matplotlib.pyplot as plt
from scipy import integrate
from astropy.constants import h, c, k_B, R_earth
h, c, k = h.value, c.value, k_B.value

nu_min = 1e7
nu_max = 1e12

def Tb(nu):
    return 180 * (nu/(180e6))**(-2.6) + 2.7

def Planck(nu):
    I = (2 * h * nu**3 * c**-2) \
        * 1/(np.exp((h * nu)/(k * Tb(nu))) - 1)
    return I

def Energy(n_years=1):
    hours = 8760 * n_years
    I = integrate.quad(Planck, nu_min, nu_max)[0]
    P = (4 * np.pi * R_earth.value)**2 * I
    e = P * hours
    # Make sure to return in TWh
    return e * 1e-12
```


Planck Function of CMB and Synchrotron Radiation
in the 1MHz-1THz Band
1e−18
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Specific Intensity
0.0
0.2
0.4
0.6
0.8
1.0
1e12
Frequency (Hz)